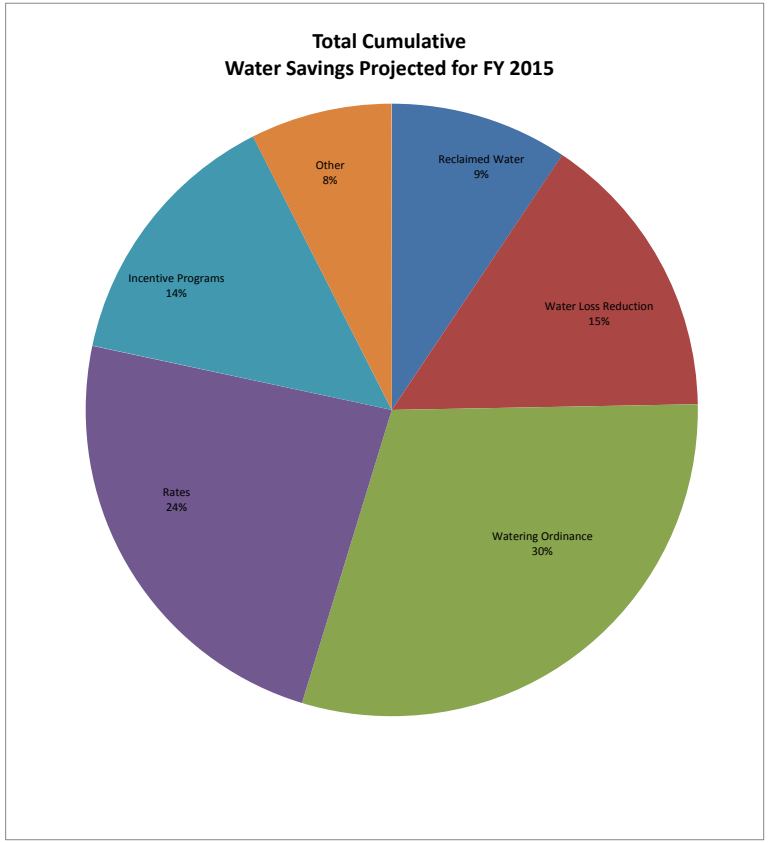
RMC Report, December 2014

Activity	Unit	Projected Peak Unit Savings, GPD	Projected Average Unit Savings, GPD	Projected Lifetime of Savings, years	Cost per Unit, if applicable	Program Participation				Peak Reduction, gallons per day		Average Savings, GPCD		Lifetime Savings per Unit, thousand gallons	Cost of Savings		FY14 Rebate Amounts	
						FY15 Goal	FY15 To Date	Prior Year FY14 Year	Prior Year FY14 To Date	Peak Savings Goal FY15	Peak Savings To Date FY15	GPCD FY15 Goal	GPCD To Date FY15		Lifetime, 1000 gallons	Peak, 1 gallon per day	FY15 Budget	FY15, Spent To Date
Indoor																		
Clothes washer rebates, SF	1 washer	15.00	15.00	10	$ 80.00	0	0	5	5	-	-	-	-	54.75	$1.46	$5.33	$0	$0
Clothes washer rebates, MF	1 washer	90.00	90.00	10	$ 180.00	0	0	0	0	-	-	-	-	328.50	$0.55	$2.00	$0	$0
Clothes washer rebates, ICI	1 washer	90.00	90.00	10	$ 180.00	0	1	4	1	-	90	-	0.00	328.50	$0.55	$2.00	$0	$3,300
Showerheads	1 unit	9.55	9.55	5	$ 2.46	1,600	1,232	7,108	584	15,280	11,766	0.02	0.07	17.43	$0.14	$0.26	$0	$0
Aerators	1 unit	2.31	2.31	5	$ 0.34	4,800	1,670	14,473	1,074	11,074	3,853	0.01	0.04	4.21	$0.08	$0.15	$0	N/A
Commercial Process Rebates	1 gallon	variable	variable	5	$ 1.00	10	8	24	0	250,000	5,454	0.27	0.01	1825	$0.55	$1	$400,000	$31,209
Outdoor																		
Irrigation audits, SF	1 audit	500.00	100.00	3	$ 187.50	550	73	249	82	275,000	36,500	0.06	0.01	73	$2.57	$0.38	$103,125	$13,688
Irrigation audits, MF and ICI	1 audit	500.00	100.00	3	$250.00	50	0	5	2	25,000	-	0.01	-	73	$3.42	$0.50	$12,500	$0
Irrigation rebates	1 rebate	TBD	TBD	variable	$ 130.00	40	7	79	14								$120,000	$650
Landscape conversion rebates	1 rebate	TBD	TBD	variable	$ 400.00	48	15	634	16								$160,000	$6,095
Rainwater harvesting rebates, SF	1 gallon	0.05	0.05	10	$ 0.62	200,000	85,838	332,452	47,909	10,137	4,351	0.01	0.02	0.19	$3.35	$12.23	$175,000	$54,885
Rainwater harvesting rebates, MF and ICI	1 gallon	0.02	0.02	10	$ 0.50	75,000	0	9,650	0	1,521	-	0.00	0.00	0.07	$6.76	$24.66	$40,000	$0
PRV rebates	1 valve	56.10	25.80	10	$ 130.00	40	5	29	1	2,244	281	0.00	0.00	94.17	$1.38	$2.32	$10,000	$500
																Total	$1,020,625	$110,327
																% of Goal		10.81%

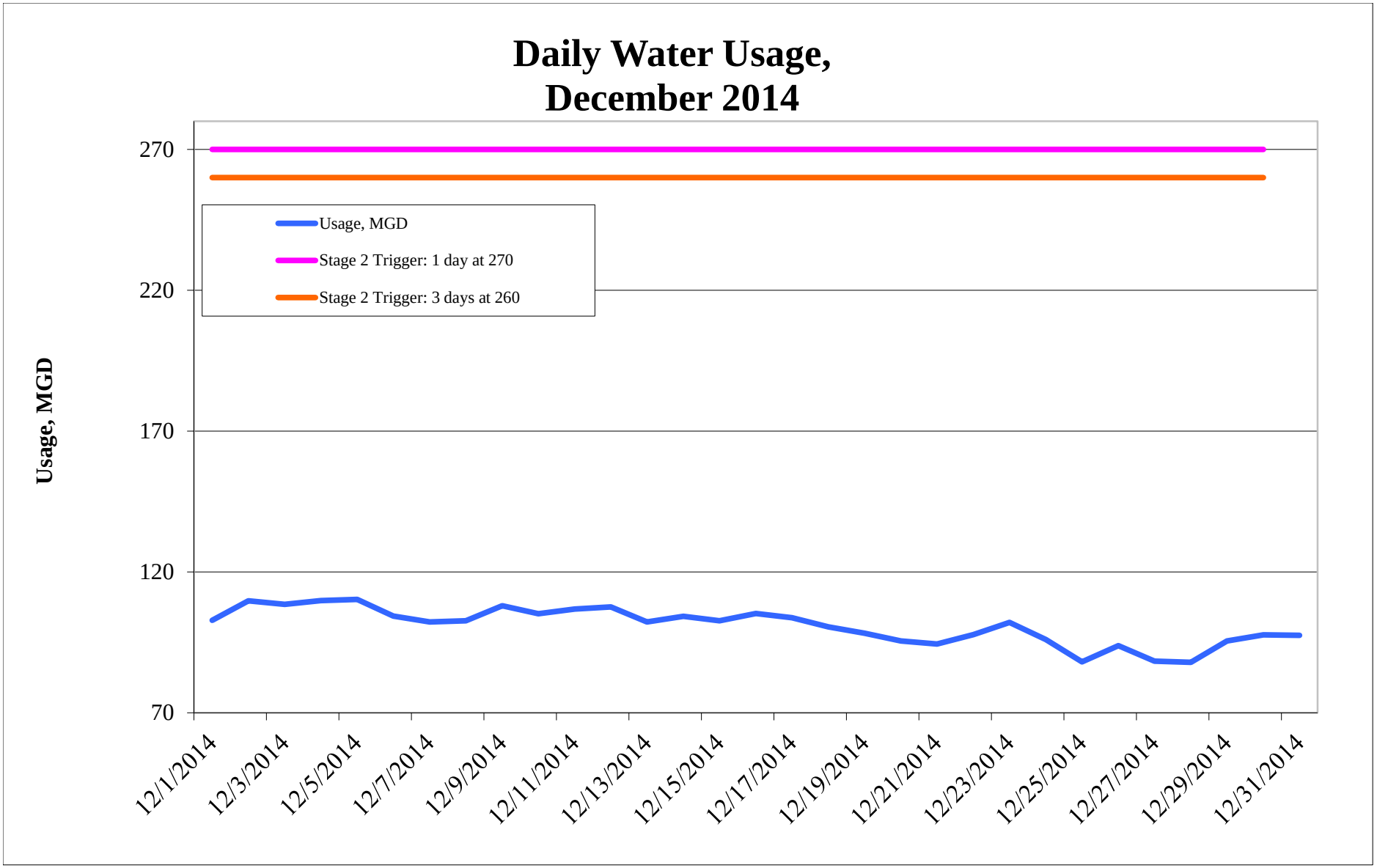
Other Program Participation		
Education & Outreach	**December 2014**	**FY15 YTD**
Events / Booths	-	1,005
Public Presentations	65	1,440
School Presentations	2,233	7,397
Water Waste Enforcement		
Residential Citations	6	30
Commercial/MF Citations	6	76
Total Investigations	224	1267
Construction Permits		
Residential Irrigation	141	380
Commercial Irrigation	15	37

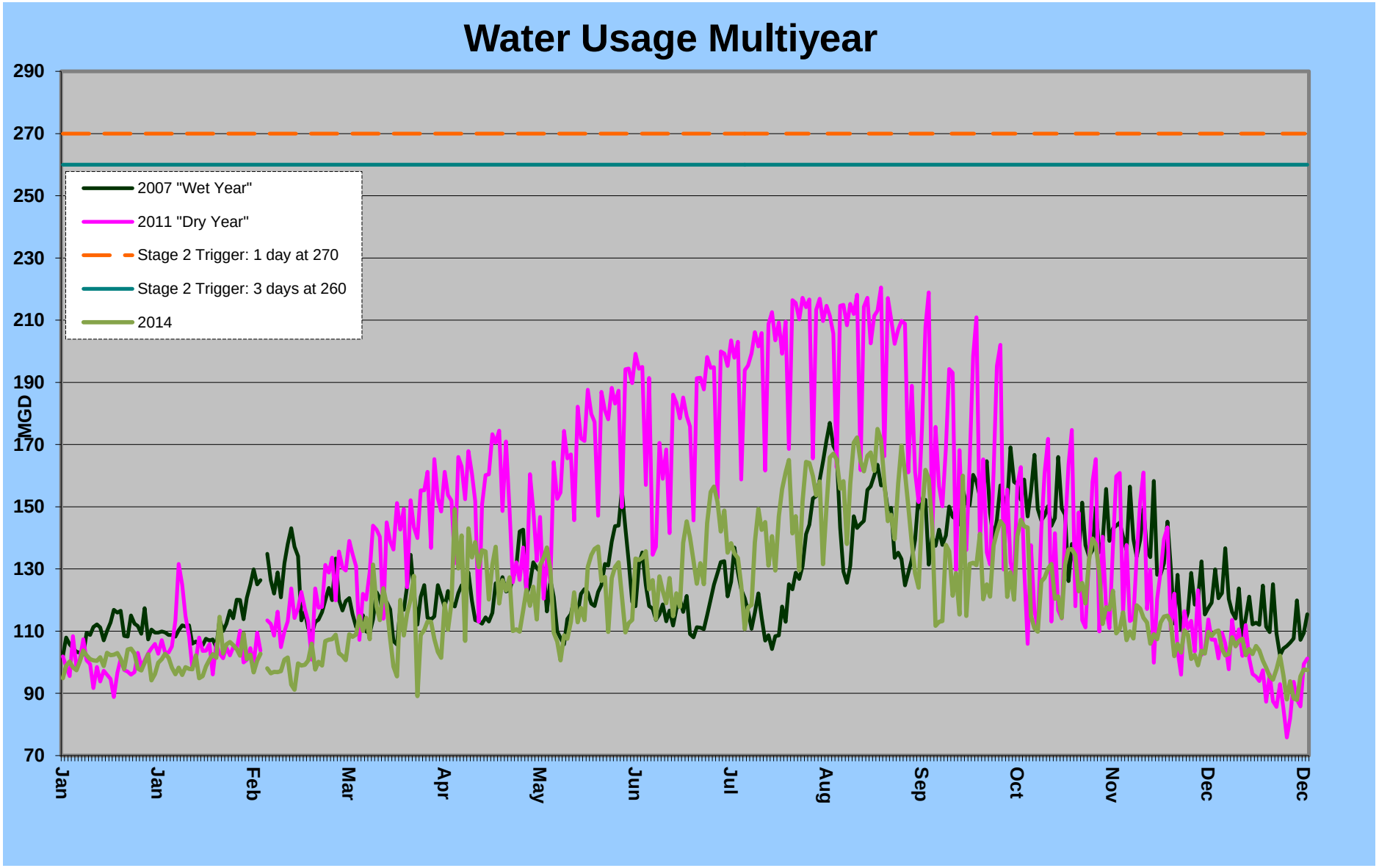
Reclaimed Water, MG	FY2015	FY2014	FY2013	FY2012	FY2011
Quarter I	249.39	232.52	355.06	387.37	347.61
Quarter II		155.12	306.31	306.78	225.33
Quarter III		280.30	347.78	380.87	377.83
Quarter IV		431.06	462.43	445.61	499.09
Total	**249.39**	**1,099.00**	**1,471.58**	**1,520.63**	**1,449.86**

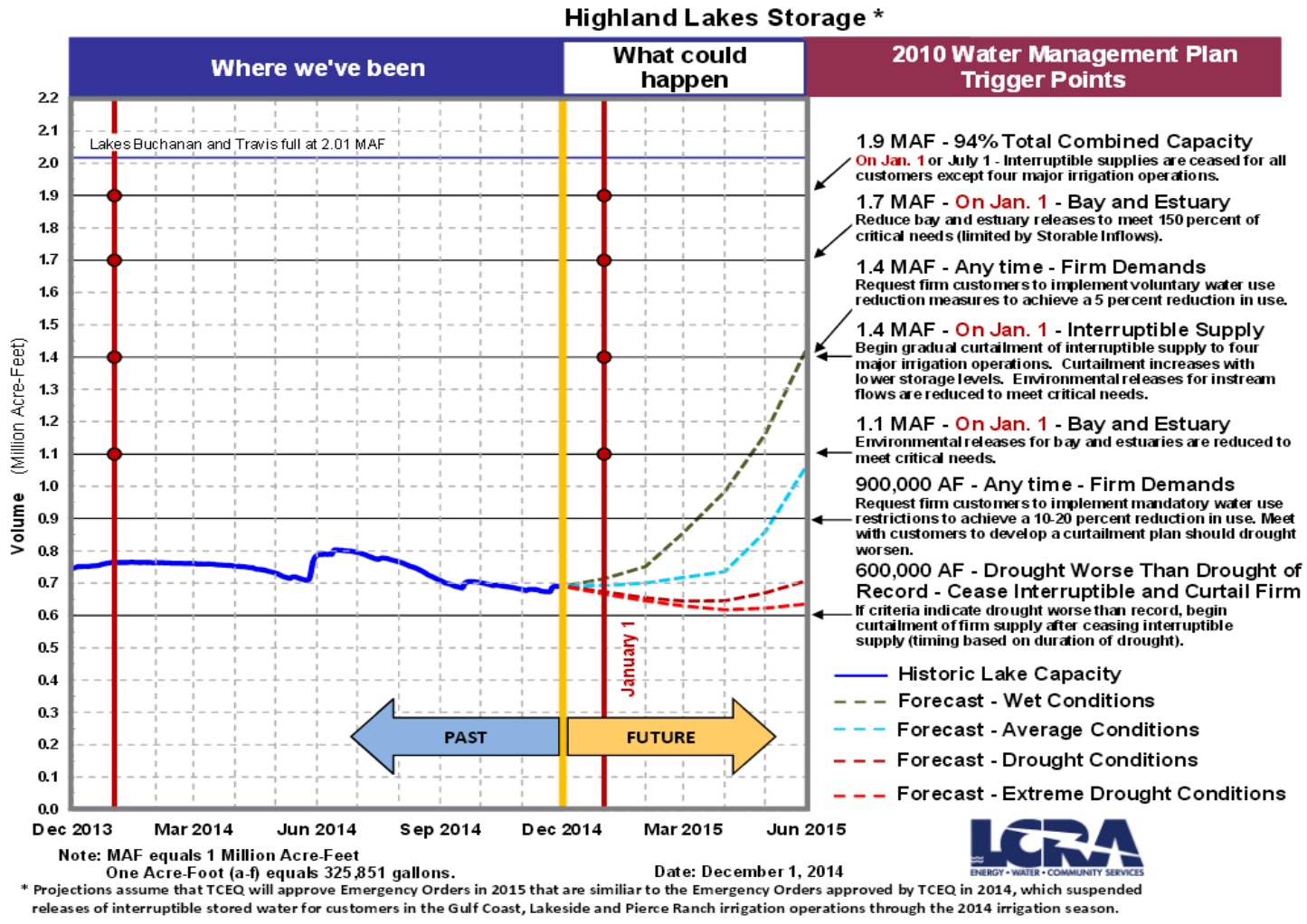
Cost Benchmarks		
Benchmark	Peak, $/gallon of capacity	Average, $/kgal
Variable Water Treatment and Distribution Costs	N/A	$0.35 (approximate)
System Expansion	$3.75+ (approximate)	N/A
Avoided LCRA Payments	N/A	$0.28 (approximate)



Daily Water Usage, December 2014




Water Usage Multiyear
290
270
250
230
210
190
170
150
130
110
90
70
MGD
2007 "Wet Year"
2011 "Dry Year"
Stage 2 Trigger: 1 day at 270
Stage 2 Trigger: 3 days at 260
2014
Jan
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Dec

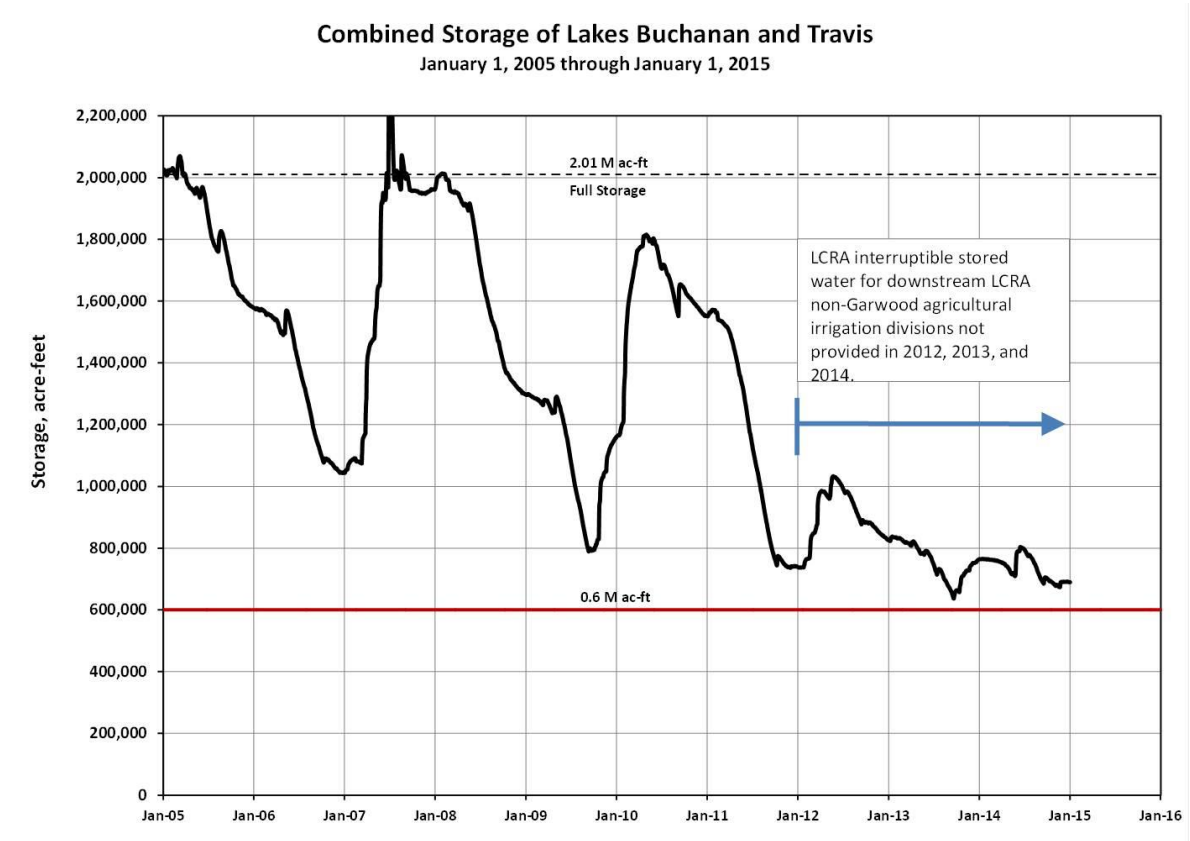


Source: LCRA

Highland lakes storage summary as of December 31, 2014
Combined lake storage: 0.689 million acre feet
Combined reservoir total: 34% full

Drought Status & Water Supply

Monthly Report
January 2015



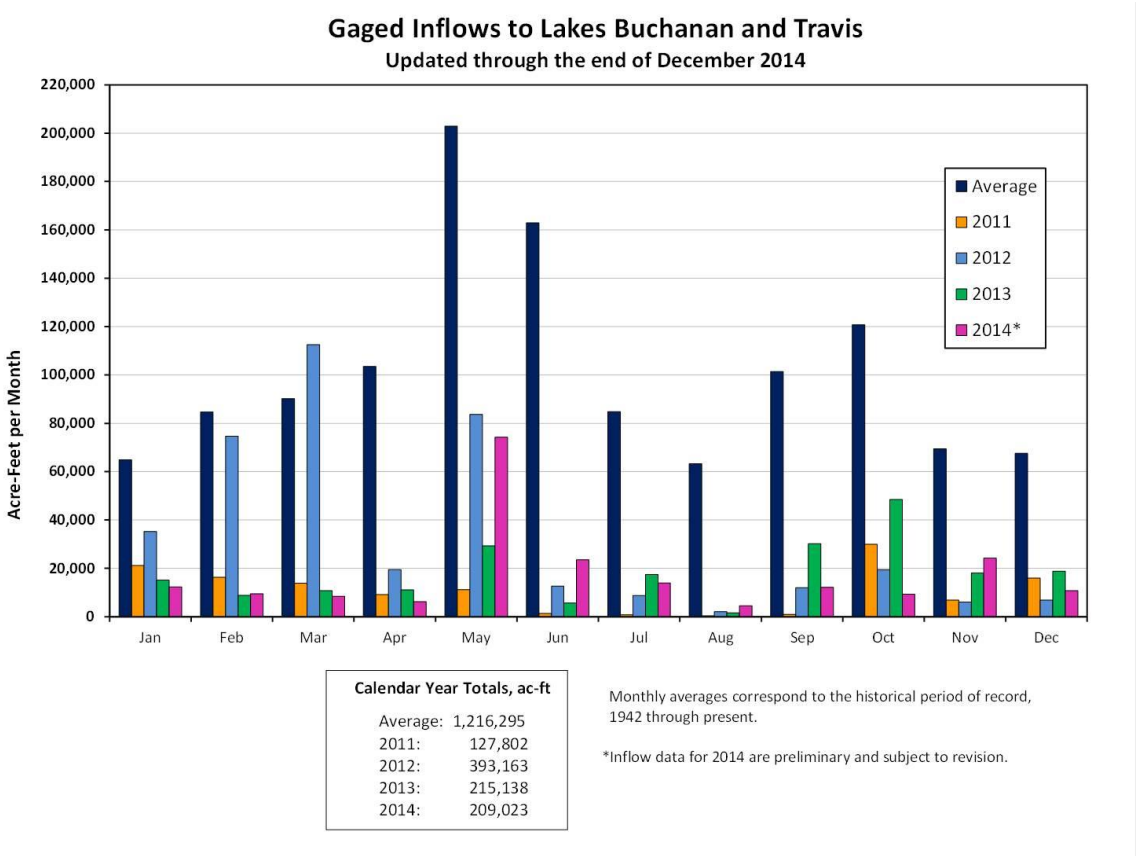
Monthly Drought Status and Water Supply Report:

The Colorado River basin is experiencing an epic drought that is continuing to deepen and may continue to do so for years into the future. The information in this drought status and water supply report is updated on a monthly basis.

Inflows to Lakes Travis and Buchanan:

Inflows to lakes Travis and Buchanan are a key measure of the drought's intensity. The top five all-time lowest inflow years in the period of record have occurred since 2005. These annual inflows are each considerably lower than the lowest annual inflow during the 1950's drought of record (501,926 acre-feet (AF) in 1950). The extreme low inflows of 2011 were only 10% of the average annual inflow since lakes Travis and Buchanan were first filled in the early 1940's.

The January-December 2014 period is the 2nd driest January-December stretch, behind 2011, since the lakes were built. The inflows during this 12-month period were 209,023 AF. One acre-foot equals 325,851 gallons. December 2014 lake inflow was 10,786 AF, which is approximately 16% of average for December. The monthly inflows for January through December for the years 2011 through 2014 are shown in the graph below:

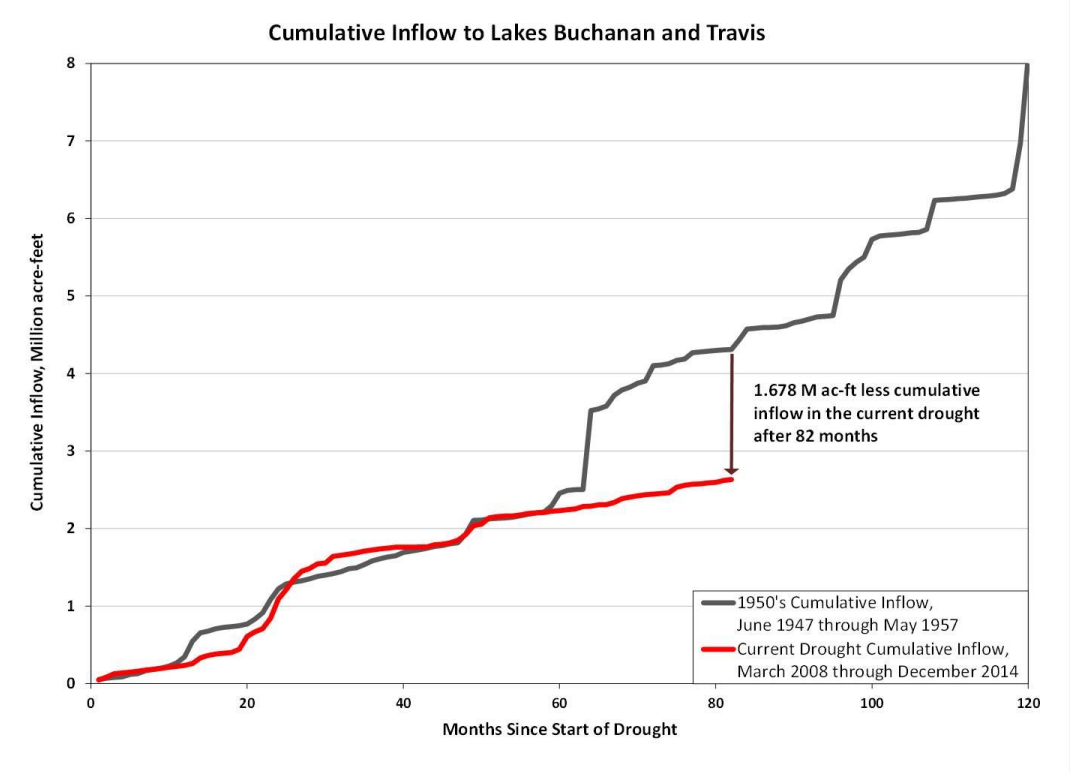


The following is a table of the top 10 lowest inflow years. Years representing the current drought starting in 2008 are highlighted in blue and make up six of the top ten lowest inflow years. These inflows represent the volume of water flowing into lakes Travis and Buchanan on an annual basis.

Rank	Year	Annual Total in Acre-Feet
1	2011	127,801
2	2014	209,023*
3	2013	215,138
4	2008	284,462
5	2006	285,229
6	1963	392,589
7	2012	393,163
8	1983	433,312
9	1999	448,162
10	2009	499,732
Average Annual Total	1942 to 2014	1,080,541

*Note: The 2014 inflow data is provisional and is subject to minor adjustments.

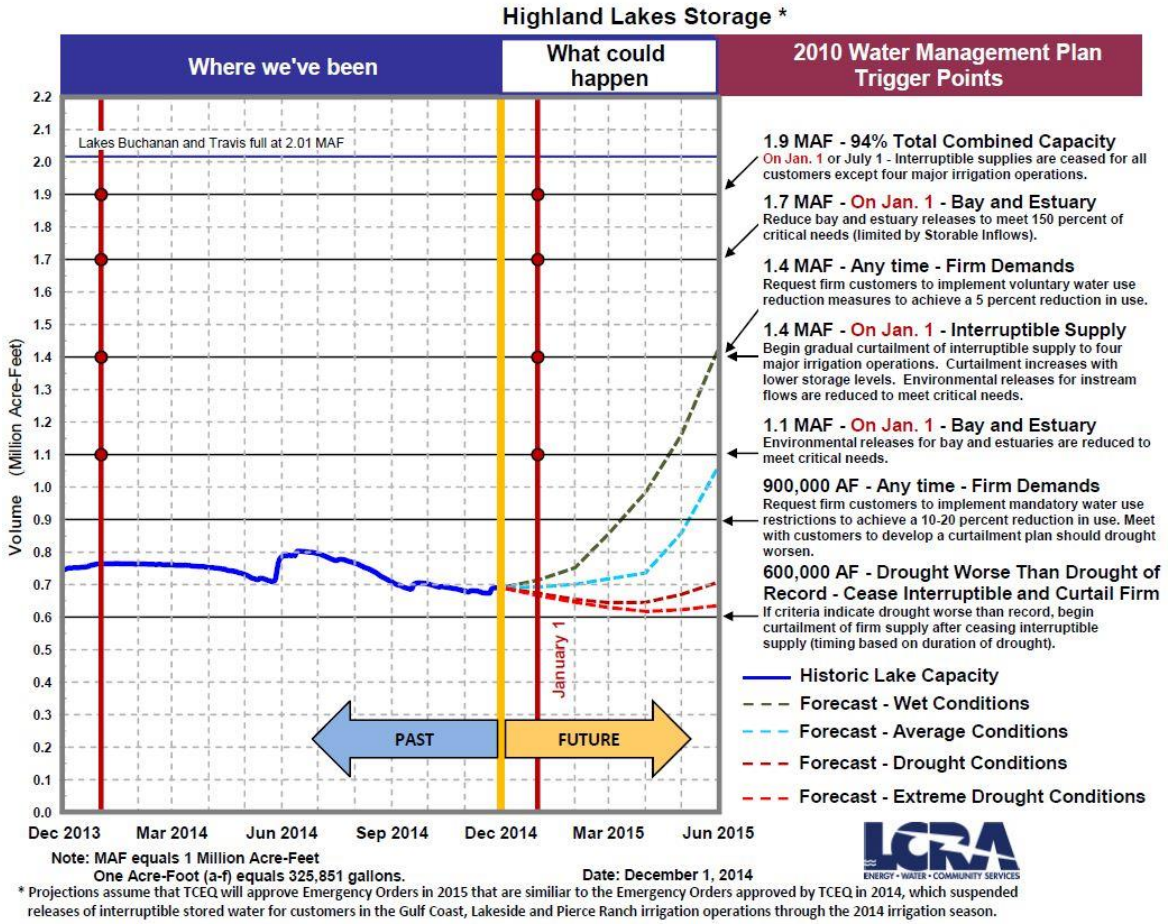
The cumulative inflow graph below shows the cumulative inflow into lakes Travis and Buchanan since March 2008 as compared to the cumulative inflow in the 1950's drought of record. The current cumulative volume of inflow is approximately 1.7 million AF below the cumulative inflow through the same number of months in the drought of the 1950's. These extreme low inflows represent uncharted territory for drought in this basin. The cumulative total of inflows to the lakes through the drought is a key hydrological measure of the drought's intensity and duration.



Combined Storage Volume and Forecast:

Another key measure of the drought's duration is the combined storage volume of lakes Travis and Buchanan. As of January 9, 2015, the current combined storage was approximately 690,000 AF (34% of full). For reference, the lowest all-time combined storage volume was 621,221 on September 9, 1952. Last summer the combined storage reached as low as 637,046 AF on September 19, 2013. LCRA's 6-month projection update for January is not yet available, however, the most recent LCRA projection, for December 2014, is shown below.

December 1, 2014 LCRA 6-Month Combined Storage Projection**:



**Note: The December 2014 projection is based a more optimistic El Nino forecast than is currently expected. Since the date of this forecast, predictions for El Nino conditions in the coming year have been reduced, as discussed below.

Dropping to 600,000 AF of combined storage or below would be the final trigger requiring a declaration of a "Drought Worse than the Drought of Record" by LCRA's Board. This declaration would trigger LCRA mandatory pro-rata curtailment of firm water customers at an initial 20% reduction off of a baseline demand as recorded from September 2010 through August 2011. LCRA has indicated that 30% or more pro-rata curtailment requirements could be required at lower combined storage volumes. Specific LCRA combined storage volumes for deeper pro-rata curtailment levels have thus far not been established by LCRA's Board.

The following table shows the March 1st combined storage volume of lakes Travis and Buchanan over the past 5 years.

Year	March 1st Combined Storage in Acre-Feet
2010	1,652,638
2011	1,534,658
2012	846,820
2013	822,364
2014	761,448

The graph on the cover page of this report shows the combined storage volumes in lakes Travis and Buchanan since January 2005. Although in LCRA Water Management Plan terminology, LCRA has been referencing early 2008 as the start of the current drought, based on when the lakes were last at their maximum allowable water conservation storage levels, a look at the combined storage graph shows that the pattern of this multi-year drought extends back through 2005. So, since unprecedented low inflow conditions can quickly return, a return to full lakes, as in 2007, does not necessarily mean that the multi-year drought is over.

Drought Conditions and Weather Outlook:

The National Oceanic and Atmospheric Administration (NOAA) National Weather Service Climate Prediction Center's United States seasonal drought outlook over the mid to western parts of the lower Colorado River basin through March 2015 is a combination of two designations: "drought remains but improves" and "drought removal likely".

El Niño weather conditions have the potential to generate wetter patterns. Based on their January 8, 2015 prediction, the National Weather Service Climate Prediction Center projects that there is an approximately 50-60% chance that El Niño conditions will be present during the next two months in the Northern Hemisphere winter and last into the early spring of 2015. However, while the forecast still calls for a chance of El Niño sea surface temperatures developing, for the time being, the combined atmospheric and oceanic state remains El Niño/Southern Oscillation (ENSO)-neutral, and the forecaster consensus favors a weak El Nino event that ends in early spring with ENSO-neutral favored thereafter.

Demand-Side Management:

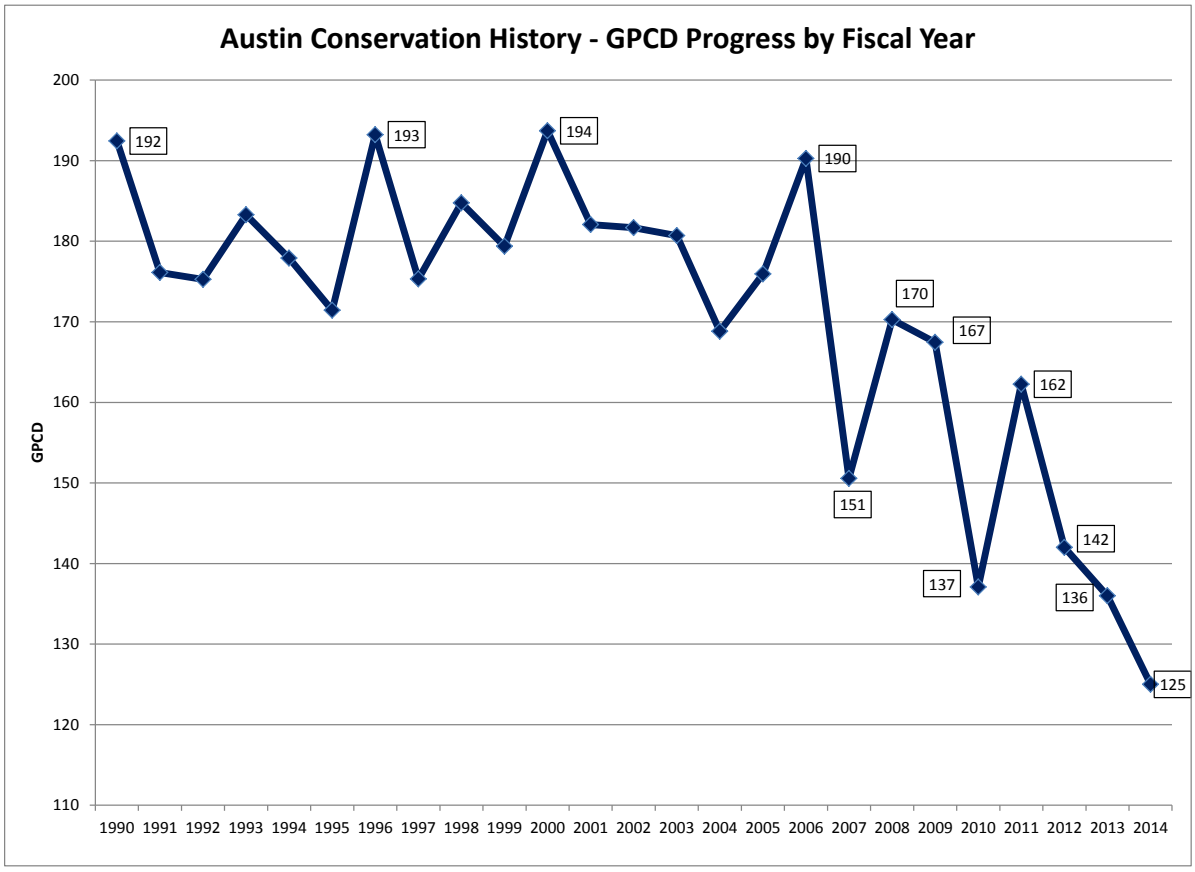
During this drought, and beyond, Austin's core water management strategies have included demand-side management through implementation of Austin's Water Conservation Program and Drought Contingency Plans, as well as continued development of water reuse.

Austin has been in Drought Contingency Plan (DCP) Stage 2 restrictions, which include no more than 1-day per week watering, nearly continuously since September 2011. Austin has already been meeting its initial 20% water use reduction goals consistent with LCRA-approved pro-rata firm customer curtailment goals in both years 2012 and 2013.

As part of its firm water customer pro-rata curtailment plan process, LCRA confirmed over 26,000 AF of documented annual water savings in the "reference year" (September 2010 through August 2011) from Austin's water conservation programs, including water reuse. These documented annual water conservation savings do not include additional savings Austin has achieved through Stage 2 implementation.

In accordance with Austin's Drought Contingency Plan (DCP), Austin is prepared to implement Stage 3 restrictions when the combined storage volume of lakes Travis and Buchanan falls below 600,000 AF. Stage 3 allows 1-day per week watering but further restricts watering hours and includes other additional restrictions.

Austin's community response to water conservation and the drought continues to be significant. With the fiscal year (FY) wrapping up at the end of September, Austin's water use in terms of gallons per capita per day (GPCD) for FY 2014 was 125 GPCD. The FY 1990 through 2014 GPCD values are shown on the graph below.



LCRA Water Management Plan (WMP) Revisions and Emergency Orders:

With more than a century of reliance and investment, Austin's core supply and infrastructure systems are centered around the Colorado River supply. Therefore, protection of Colorado River system firm water interests is critical. Austin has senior water rights and firm water supply agreements with LCRA that provide Austin with firm water supplies of up to 325,000 AF per year. This amount is more than double Austin's current level of demand.

LCRA's operations and management of the water stored in lakes Travis and Buchanan is guided by a Texas Commission on Environmental Quality (TCEQ)-approved document referred to as the LCRA Water Management Plan (WMP). LCRA's WMP is currently undergoing a critical revision process, being coordinated through TCEQ, which has been extended to incorporate more recent drought year data (currently through the end of 2013).

Concurrently, LCRA has been operating under TCEQ Emergency Orders (EOs) for 2012, 2013, and 2014. These EOs allow LCRA to depart from operating under their current WMP. EOs and the on-going drought conditions have resulted in cut-off of interruptible stored water supply from lakes Travis and Buchanan for three of the four agricultural irrigation divisions in the lower counties of the lower Colorado River basin. The 2014 EO terminated on November 20, 2014.

In December 2014, LCRA submitted a request to TCEQ for a fourth year of emergency relief, for 2015, to cut-off large releases of interruptible water with the on-going drought.

TCEQ is continuing to process LCRA's October 31, 2014 submittal of an amended and restated application to revise LCRA's Water Management Plan (WMP) in significant ways. Revisions include incorporating into the plan procedures for curtailing interruptible water (primarily used for downstream agricultural irrigation operations) such that combined storage in Lakes Travis and Buchanan is maintained above 600,000 AF through a repeat of historic hydrology through 2013 and incorporating a three-tier regime for determining water availability for interruptible agricultural customers that considers storage and inflow conditions. A stakeholder meeting regarding the amended application was held by TCEQ on January 7, 2015. The City and other stakeholders provided comments to TCEQ and written comments are being accepted through January 30th.

City of Austin representatives continue to work diligently through the critical LCRA WMP revision process and 2015 TCEQ Emergency Order processes to proactively ensure reservoir management of Lakes Travis and Buchanan is consistent with Austin's firm water interests and with LCRA's duties under its lake permits and its agreements with firm customers such as the City.

Drought Response Planning Update:

Austin Water Resource Planning Task Force (AWRPTF)

The Austin Water Resource Planning Task Force (Task Force) was created by City Council (Resolution No. 20140410-033) in April 2014 to evaluate the City's water needs, to examine and make recommendations regarding future water planning, and to evaluate potential water resource management scenarios for Council consideration. The Task Force was charged with making recommendations on any alternative water sources including conservation, reuse, regional transmission systems and partnerships, groundwater, aquifer storage, as well as other potential sources in the region. The Task Force was supported by Austin Water and Watershed Protection.

The Task Force convened its first meeting on May 5, 2014 and met intensively through June 25, 2104 to execute their charge. The Task Force's final report and recommendations to Council is available on-line at:
http://www.cityofaustin.org/edims/document.cfm?id=214146

August 7, 2014 Council Resolution (Resolution No. 20140807-090)
On August 7, 2014, City Council passed a resolution (Resolution No. 20140807-090) directing the City Manager to report back to Council by September 25, 2014 with a proposed schedule, proposed plan, and proposed budget for implementing certain key recommendations from the Task Force report and to include a plan for a stakeholder process. Council Resolution No. 20140807-090 is available on-line at:
http://www.austintexas.gov/edims/document.cfm?id=214617

The September 25, 2014 report to Council summarizes the key AWRPTF recommendations from the Task Force report with schedule information, available preliminary budget information, and plans for stakeholder input.

The September 25, 2014 report to Council is available on-line at:
http://www.cityofaustin.org/edims/document.cfm?id=218197

Attached to this Drought Status and Water Supply Report is a summary update on supply-side and demand-side strategies recommended by the Austin Water Resource Planning Task Force (AWRPTF) with schedule, budget, and status updates.

Attachment

Summary Austin Water Resource Planning Task Force (AWRPTF) Strategy Updates
January 2015

Austin Water has classified the Task Force Key Recommendations into the following categories for purposes of planning and budgeting:

1) Short-term demand-side management strategies (SD)
2) Short-term supply-side management strategies (SS)
3) Proposed code and rules changes (CR)
4) Feasibility and engineering analysis for supply-side strategy grouping (FEA)
5) Integrated Water Resources Plan (IWRP)

1) Short-term Demand-side Management Strategies (SD) Summary			
Strategy	**Schedule**	**Budget**	**Status**
SD1. Benchmarks	On-going.	In-house resources to be utilized.	For program selection, continuing to use cost benchmarks Austin Water developed with Resource Management Commission, plan to develop broader supply & demand benchmarks through the Integrated Water Resources Plan (IWRP) process.
SD2. Water report software/services	Pilot can be underway in 6 to 9 months.	Estimated $45,000 for initial launch (includes one-time startup costs).	Working with Purchasing Office and IT Services on procurement options.
SD3. Reclaimed: Completing the Core	On-going construction program with staged project completion over the next 5 to 7 years.*	Capital Projects: $41.4 million (in current CIP plan).	Completing the Core projects are integrated into Austin Water's Capital Improvement Plan and staggered over the next few years. Various projects are in the planning, design, and construction phases.
SD4. Leak/water loss reduction	On-going leak detection, pipe condition assessment, & remediation programs; develop and share cost relationship information by end of 2015.	Continue to fund efforts through annual O&M and CIP budget process; use in-house resources for developing cost relationship information.	Continuing on-going leak detection, pipe condition assessment, and remediation programs; exploring and developing cost relationship information in process. AW has formulated a Leak Detection Core Team to discuss current and future leak detection contract services and provide update on in-house crews' active leak detection program.

*Note: There are other reclaimed water projects, beyond completing the core, discussed below in the "Feasibility and Engineering Analyses for Supply-Side Strategy Grouping (FEA)" section, that could be accelerated due to the current drought. These potential drought response strategies, including Lake Long enhanced off-channel storage and indirect potable reuse, include construction of additional reclaimed water system infrastructure components contained in Austin Water's reclaimed master plan.

2) Short-term Supply-side Management Strategies (SS) Summary			
Strategy	**Schedule**	**Budget**	**Status**
SS1. Enhance Longhorn dam gate operations	Continue to monitor and coordinate with LCRA – make further gate adjustments and plan for further improvements, as necessary.	Bascule dam gate improvement project funded by AE through current CIP (~$650,000). Cost estimates for possible future improvements are to be determined.	Completed: - Gate adjustments, using in-house resources. - AE's bascule dam gate improvement project. AE staff is continuing to coordinate and monitor conditions and, as needed, coordinate further gate adjustments with LCRA.
SS2. Lake Long operating level (existing capacity)	Coordination between AE and LCRA to assess feasibility, negotiate, and complete pro-rata curtailment plan amendment as soon as possible and subsequently begin modified operations.	In-house resources to be utilized.	Pro-rata curtailment plan amendment between AE and LCRA expected to soon be complete.
SS3. Lake Austin operating level	Proposed to be implemented during non-peak recreational months (October through May) after combined storage in the Highland Lakes falls below 600,000 acre-feet (AF). On an ongoing basis, AWU will monitor LCRA combined storage projections to provide adequate opportunity to conduct a robust public outreach and education process in advance of possible implementation triggering. Will prepare for possible implementation in 2015. Austin Water will coordinate with LCRA.	Coordination to be implemented using in-house resources. Austin Water may need to budget for professional public outreach resources to implement this strategy. However, a scope and budget for these resources has not yet been developed.	Operational plan development and public outreach plan development are underway. Continuing to prepare for possible implementation in 2015.

3) Proposed code and rules changes (CR) Summary

These include recommendations to amend existing codes and rules, for which development and stakeholder involvement processes can begin prior to the completion of an IWRP.

Strategy	Schedule	Budget	Status
CR1. Drought response stages	Will prepare for possible implementation in 2015.	In-house resources to be utilized.	With updated LCRA combined projections (December 2014), preparing for community meetings in Jan./Feb. 2015 time-frame to seek public input on lake level triggers and potential additional restrictions to delay Stage 4. In July 2014 report, Task Force recommended hand-watering at 500K AF, Stage 4 no later than 400K AF.
CR2. Toilet replacement	Code amendments before Council in late 2015.	In-house resources to be utilized.	Austin Water plans to work with stakeholders to develop code language and an implementation plan. Anticipate public meetings March-May 2015 with outreach to trade groups starting in February.
CR3. Cooling tower condensate	Work with stakeholders in 2015 to incorporate in City's regular plumbing code update.	Coordination to be implemented using in-house resources.	Austin Water will work with stakeholders in 2015 to develop requirements for new facilities in preparation for next scheduled plumbing code update, anticipated to occur in 2016. Note that schedule may shift based on plumbing code revision timeline.
CR4. Gray water amendments	Amendments sent to Council late 2014.	In-house resources to be utilized for remaining work.	Amendments approved by Council November 20, 2014.
CR5. Irrigation-related measures	Work with stakeholders and report back to Council in late 2015 with recommendations.	In-house resources to be utilized.	Austin Water continuing work in this arena including efforts to improve irrigation efficiency; will continue to prepare for additional stakeholder outreach and reporting back to Council by late 2015 with recommendations.

4) Feasibility and Engineering Analyses for Supply-Side Strategy Grouping (FEA) Summary			
Strategy	**Schedule**	**Budget**	**Status**
FEA1. Lake Long enhanced	Complete feasibility and engineering analyses, including water quality modeling and assessments in 2015. Note that permit requirement consultations with TCEQ will be on-going in 2015.	To be determined (TBD) based on developing scope of work.	Preliminary alignment of reclaimed water pipelines developed, design engineer being acquired off of rotation list. Rotation list contracting for additional feasibility and engineering analysis engineering services for this strategy, as part of the FEA1-4 group, is also underway.
FEA2. Indirect potable reuse	Preliminary engineering for the reclaimed water pipelines associated with this option currently underway, Preliminary Engineering Report (PER) expected to be completed by the end of 2015. Complete additional feasibility and engineering analyses, including water quality modeling and assessments, in 2015. Note that permit requirement consultations with TCEQ will be on-going in 2015.	Current PER budget is $300,000. Additional feasibility and engineering analyses budget requirements are TBD based on scope of work, to be developed.	Reclaimed water pipelines routing study underway with results expected in June 2015. Rotation list contracting for additional feasibility and engineering analysis engineering services for this strategy, as part of the FEA1-4 group, is also underway.
FEA3. Reclaimed water infiltration	Complete feasibility and engineering analyses, including water quality modeling and assessments, in 2015. Note that permit requirement consultations with TCEQ will be on-going in 2015.	TBD based on scope of work, to be developed.	Rotation list contracting for feasibility and engineering analysis engineering services for this strategy, as part of the FEA1-4 group, is underway.
FEA4. Capture Lady Bird Lake inflows	Complete feasibility and engineering analyses, including conduct water quality modeling and assessments, in 2015. This analysis is to be done in coordination with feasibility and engineering work on other strategies that involve pumping water from Lady Bird Lake into the Ullrich Water Treatment Plant for treatment and distribution.	TBD based on scope of work, to be developed.	Rotation list contracting for feasibility and engineering analysis engineering services for this strategy, as part of the FEA1-4 group, is underway.

5) Integrated Water Resources Plan (IWRP) Summary			
Strategy	**Schedule**	**Budget**	**Status**
IWRP1. Integrated Water Resources Plan Project will include a Conservation Potential Assessment	Project planning and scoping: currently underway. Conduct project over approximately the next 2 years with substantial completion by the end of 2016.	$500,000 plus in-house and other resources - additional funding may be needed - to be determined through project planning and scoping process.	Continuing project planning, scoping, and making preparations for professional services contracting. In process items include evaluating disaggregated demand models, researching scope of IWRP climate element, and working with Watershed Protection Department on elements including rainwater harvesting.